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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,322	06/10/2005	Arthur F. Clark	11044-0003	1549

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EXAMINER	
MANOHARAN, VIRGINIA	
ART UNIT	PAPER NUMBER
1764	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/538,322	CLARK, ARTHUR F.	
	Examiner	Art Unit	
	Virginia Manoharan	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 November 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

" The negative proviso without substantial amounts of said target " is nowhere in the specification. The original claim 1 recites "without said target". The former recitation would presupposed some amount of target, (although not substantial), as opposed to totally without said target as originally filed.

Claims 7-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a). Claim 7 is rejected fro the same reason as set forth at page 2, section c). through page 3, first full paragraph of the previous Office action.

b).Claim 8 is rejected as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The positive step of separating is omitted. It would presupposed from claim 8, as recited, that the cooling step, per se, would separate the supernatant from the sediment.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over anyone of Cox et al (4,225,394), O'Donnell et al (5,064,507) or Bowes (5,162,081) .

Anyone of the above references is applied for the same reasons as set forth at page 3 of the previous Office action.

Claims 1-6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowes in view of Cox et and Aquila et al (4,720,327).

Bowes and Cox are applied for the same combined reasons as set forth at page page 4 of the previous Office action. Aquila teaches or suggests the step "of providing additional amounts or said solvent without substantial amounts of said target to said evaporator to maintain the boiling point of said mixture below that of said target" as claimed in claim 1. See e.g., col. 1, lines 65-68 and cols. 3-4. Aquila further renders obvious the claimed process of removing bottoms from said evaporator, cooling said bottoms to allow sediment to separate from supernatant, and adding said supernatant to

said evaporator as claimed in claim 8. See the drawing. To incorporate the process taught by Aquila to the process of Bowes would have been obvious to one of ordinary skill in the art especially since Bowes suggests that the solvent can be reused in the process. See col.1, lines 49-51.

Applicant's arguments filed November 27, 2006 have been fully considered but they are not persuasive.

112 REJECTION:

While a dependent claim may be of a different statutory category than that of the claim from which it depends,as argued, however, claim 7 is deemed to be an improper dependent claim because it can be prepared by a process different from the process of claim 1. Note the preparation of ethylene glycol or amines, e.g., the separation of ethylene glycol from water, wherein the water is first removed by distillation at one temperature, and the ethylene glycol is separated from the contaminating salts at a higher temperature. Another example is the separation of amines from non-volatile contaminants, such as the amines used for removing carbon dioxide from natural gas as recognized by applicant and described at page 5, paragraph [14] in the specification.

103 REJECTION:

However, the claims are not limited to the argued "adding solvent back to the evaporator" commensurate with the argument. Giving the claimed language its broadest reasonable interpretation, Bowes suggestion of reusing the solvent water would provide the water, i.e., would read on the claimed "providing additional amounts of said solvent without substantial amounts of said target to said evaporator" as broadly claimed. The

claims do not recite the argued adding back which would presupposed recycling, recirculating, or returning the solvent back to the evaporator.Nonetheless, Aquila shows the water (solvent) being recycled back to the evaporator, and therefore the above argued limitation is not an unobvious subject matter nor is it evidence of criticality in the art. Applicant's further argument that the method of Bowes requires the "ethylene glycol to be heated to at or above its boiling temperature" is not considered well-taken. Col. 5, lines 22-34 of Bowes would suggests the argued process of boiling to below the boiling point. Furthermore, Cox was not cited for reasons as argued, i.e.,for Cox to teach that the temperature of the glycol during evaporation is to be below the boiling point of the glycol, but was cited to teach, suggest or disclose the claimed flash evaporation step followed by distillation to separate out the target component. Moreover and contrary to applicant's assertion, Cox's disclosure at col. 7, lines 50-53, would at least be suggestive that the temperature of the glycol is below the boiling point of the glycol. An artisan would appreciate that the glycol may all (although no 100% evaporation) be evaporated at below the boiling point if the distillation is carried- out, interalia, at subatmospheric pressure. Moreover, the additional features, e.g., the argued "expensive vacuum equipment" of Bowes, and the "alkali metal hydroxide" of Cox, although not required by the claims, are not excluded therefrom with the claims reciting "comprising" which is all-inclusive.

The argument relative to O' Donnell is moot since this alternative reference has been dropped from the above rejection.

Thus, in the absence of anything which may be "new" or "unexpected result." a prima facie case of obviousness has been reasonably established by the art and has not been rebutted. Unexpected results must be established by factual evidence. Mere arguments or conclusory statements in the specification, applicants' amendments, or the Brief do not suffice. In re Linder, 457 F.2d 506, 508, 173 USPQ 356, 358 (CCPA 1872). In re Wood, 582, F.2d 638, 642, 199 USPQ 137, 140 (CCPA 1978).

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Virginia Manoharan whose telephone number is 571-272-1450.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola, can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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